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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,595	06/18/2001	Ronald E. Pringle	69.0096CIP	1993

7590 09/07/2004  
Schlumberger Technology Corporation  
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EXAMINER

DANG, HOANG C

ART UNIT PAPER NUMBER

3672

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/883,595

Applicant(s)

PRINGLE ET AL.

Examiner

Hoang Dang

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11, 13, 14 and 20 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 7 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3 and 4 is/are allowed.
- 6) ☒ Claim(s) 5, 6, 9-11, 13, 14 and 20 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☒ Claim(s) 2 and 7 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 5, 6, 10, 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Longbottom et al (US 6,079,494) in view of Mashaw, Jr. et al (US 5,211,241) or Schnatzmeyer (US 5,957,207).

The claimed structure or method steps read exactly on the reference's when plug (56, 56a or 56b) of Longbottom et al '494 is considered as "closure member" or "blocking means" and regulating device (58, 58a or 58b) of Longbottom et al '494 is considered as "sleeve valve" or "choking means" as recited.

It is noted that the "first bore" does not distinguish from the "bore of the tubing adjacent regulating device 58, 58a or 58b" and the "second bore" or "second passageway" does not distinguish from the "annular space surrounding regulating device 58, 58a or 58b".

Longbottom et al discloses the invention as claimed as explained above. It is not clear whether the sleeve that controls fluid flow through the ports in the tubing portion of Longbottom et al is movable at predetermined increments between an open and a closed position. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to move a sleeve of a variable choke or valve through predetermined increments so that the amount of fluid flow through the choke or valve can be better controlled as evidenced by Mashaw, Jr. et al '241 (see column 1, lines 50-53) or Schnatzmeyer '207 (column 3, line 45 through column 4, line 17 and column 5, line 56 through column 6, line 39).

As for claim 6, see "closure member" 56 or 56a in Longbottom et al.

As for claims 10-11, the annular space between members 34a and 92 in Figure 4A is considered as the "second bore".

As for claim 13, the "second passageway" (the annular space define between member 34a and 92 in Fig. 4A) in Longbottom et al has a total flow area at least as great as the flow area of the first passageway (the bore of member 92) as recited.

As for claim 14, see column 5, line 42 in Longbottom et al.

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Longbottom et al (US 6,079,494) in view of Mashaw, Jr. et al (US 5,211,241) or Schnatzmeyer (US 5,957,207) as applied to claims 5, 6, 10, 11, 13 and 14 above, and further in view of Bouldin et al (US 5,979,558) or Schnatzmeyer (US 5,957,207).

Longbottom et al discloses the invention as claimed except that it is not clear if Longbottom uses a sleeve member having a plurality of ports. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use such a sleeve because it is well known in the art to provide ports on a sliding sleeve of a variable choke or valve to regulate fluid flow as evidenced by Bouldin et al (see column 5, line 37 through column 6, line 5) or Schnatzmeyer (see column 3, line 47 through column 6, line 24).

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Longbottom et al (US 6,079,494) in view of Ellis (US 6,073,696).

Longbottom et al discloses the invention substantially as claimed, i.e., the valve's bore is the bore of the tubing that is closeable by removable plug 56-56b; the bypass is the passage from the annular space around regulating device 58-58b into the tubing through the regulating device

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58-58b; and a variable choke positionable at and between an open and a closed position in the valve to selectively choke the fluid flow through the valve. The choke can be fluid operated by fluid pressures and biased to the closed position as disclosed in column 5, line 41-64 in Longbottom.

Longbottom does not disclose the step of deploying the valve within a portion of a wellbore packed with gravel. However, Ellis teaches that it is well known in the well production art to provide a wellbore with a gravel pack to control sand. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the wellbore of Longbottom et al with a gravel pack as claimed in view of the teaching of Ellis for the advantage pointed out above.

#### *Allowable Subject Matter*

5. Claims 1, 3 and 4 are allowed.
6. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Response to Arguments*

7. Applicant's arguments filed June 14, 2004 have been fully considered but they are not persuasive.

Contrary to applicant's argument, the "first bore" or "first passageway" does not distinguish from the "bore of the tubing adjacent regulating device 58, 58a or 58b" and the

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"second bore" or "second passageway" does not distinguish from the "annular space surrounding regulating device 58, 58a or 58b" of Longbottom et al.

Contrary to applicant's argument, either Mashaw, Jr. et al '241 or Schnatzmeyer '207 show that downhole fluid regulating devices comprising a sleeve that moves in predetermined increments to control the amount of fluid flow therethrough are well known.

Contrary to applicant's argument, the "second passageway" (the annular space define between member 34a and 92 in Fig. 4A) in Longbottom et al has a total flow area at least as great as the flow area of the first passageway (the bore of member 92) as recited.

Contrary to applicant's argument, in Longbottom et al, the tubing portion that contains the regulating device 58, 58a or 58b clearly defines a longitudinal first bore and second passageway (i.e., the annular space surrounding regulating device 58, 58a or 58b) that communicates flow from "a position upstream of the closure member (i.e., removable plug 56, 56a or 56b) to a position downstream of the closure member to provide a bypass flow.

Contrary to applicant's argument, the claims clearly do not preclude the second tubing string in Longbottom et al.

### *Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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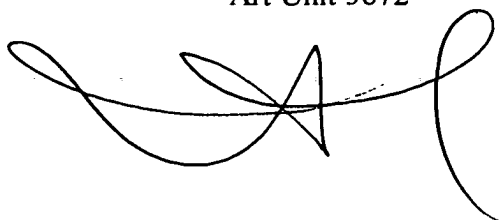
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Dang whose telephone number is 703-308-2149. The examiner can normally be reached on 9:15-5:45 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoang Dang  
Primary Examiner  
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A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, positioned below the printed name and title of the examiner.